Action for a cleaner tomorrow
Mathematics

This correlation of South Carolina Curriculum Standards only applies to those lessons related to energy topics and issues. There are more than 150 lessons in *Action for a cleaner tomorrow* correlated to English/Language Arts, Math, Science and Social Studies standards.

Grade Kindergarten

Strand IV. Measurement
Standard I. Understand measurable attributes of objects and the units, systems and processes of measurement.
Expectation B. Compare and order objects according to their attributes.
What's Energy?

Expectation D. Select an appropriate unit and tool for the attribute being measured.
What's Energy?

Grade One

Strand IV. Measurement
Standard I. Understand measurable attributes of objects and the units, systems and processes of measurement.
Expectation B. Compare and order objects according to their attributes.
What's Energy?

Expectation C. Understand how to measure using nonstandard and standard time.
What's Energy?

Expectation D. Select an appropriate unit and tool for the attribute being measured.
What's Energy?

Second Grade
Third Grade

There are no energy related lessons in Second or Third Grades.

Grade Four

Strand I. Numbers and Operations
Standard III. Compute fluently and make reasonable estimates.
Expectation E. Use visual models, benchmarks and equivalent forms to add and subtract commonly used fractions and decimals.
Conserving Energy
Living Without Power

Grade Five

Strand I. Numbers and Operations
Standard I. Understand numbers, ways of representing numbers, relationships among numbers and number systems.

Expectation E. Recognize and generate equivalent forms of commonly used fractions, decimals and percents.

Conserving Energy
Living Without Power

Standard II. Understand meanings of operations and how they relate to one another.

Expectation A. Understand various meanings of multiplication and division.

Conserving Energy

Strand V. Data Analysis and Probability

Standard I. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them.

Expectation A. Design investigations to address a question and consider how data-collection methods affect the nature of the data set.

Power in South Carolina

Expectation C. Represent data using tables and graphs such as line plots, bar graphs and line graphs.

Living Without Power
Power in South Carolina

Grade Six

Strand I. Numbers and Operations

Standard I. Understand numbers, ways of representing numbers, relationships among numbers and number systems.

Expectation A. Work flexibly with fractions, decimals and percents to solve problems.

Recycling: It's an Energy Issue

Standard III. Compute fluently and make reasonable estimates.

Expectation B. Develop and analyze algorithms for computing with fractions, decimals and integers and develop fluency in their use.

Energy from the Sun

Strand IV. Measurement

Standard II. Apply appropriate techniques, tools and formulas to determine measurements.

Expectation A. Use common benchmarks to select methods for estimating measurements.

Energy from the Sun
Recycling: It's an Energy Issue

Strand V. Data Analysis and Probability

Standard III. Develop and evaluate inferences and predictions that are based on data.

Expectation A. Use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken.

Energy from the Sun

Grade Seven

Strand I. Numbers and Operations

Standard I. Understand numbers, ways of representing numbers, relationships among numbers and number systems.

Expectation A. Work flexibly with fractions, decimals and percents to solve problems.

Recycling: It's an Energy Issue

Standard III. Compute fluently and make reasonable estimates.

Expectation A. Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers and paper and pencil, depending on the situation, and apply the selected method.

Energy from the Sun

Expectation B. Develop and analyze algorithms for computing with fractions, decimals and integers and develop fluency in their use.

Energy from the Sun

Strand II. Algebra

Standard II. Represent and analyze mathematical situations and structures using algebraic symbols.

Expectation A. Develop an initial conceptual understanding of different uses of variables.

Recycling: It's an Energy Issue
Energy from the Sun

Strand IV. Measurement

Standard I. Understand measurable attributes of objects and the units, systems and processes of measurement.

Expectation B. Understand relationships among units and convert from one unit to another within the same system.

Recycling: It's an Energy Issue

Standard II. Apply appropriate techniques, tools and formulas to determine measurements.

Expectation C. Develop and use formulas to determine the circumference of circles and the area of triangles, parallelograms, trapezoids and circles and develop strategies to find the area of more complex shapes.

Energy from the Sun

Strand V. Data Analysis and Probability

Standard III. Develop and evaluate inferences and predictions that are based on data.

Expectation A. Use observations about differences between two or more samples to make conjectures about the populations from which samples were taken.

Recycling: It's an Energy Issue
Energy from the Sun

Grade Eight

Strand I. Numbers and Operations
Standard I. Understand numbers, ways of representing numbers, relationships among numbers and number systems.
Expectation A. Work flexibly with fractions, decimals and percents to solve problems.
Recycling: It's an Energy Issue

Standard III. Compute fluently and make reasonable estimates.
Expectation A. Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers and paper and pencil depending on the situation, and apply the selected methods.
Energy from the Sun

Strand II. Algebra
Standard II. Represent and analyze mathematical situations and structures using algebraic symbols.
Expectation A. Develop an initial conceptual understanding of different uses of variables.
Recycling: It's an Energy Issue
Energy from the Sun

Strand IV. Measurement
Standard I. Understand measurable attributes of objects and the units, systems and processes of measurement.
Expectation B. Understand relationships among units and convert from one unit to another within the same system.
Recycling: It's an Energy Issue

Grades Nine - Twelve

Strand I. Numbers and Operations
Standard III. Compute fluently and make reasonable estimates.
Expectation A. Develop fluency in operations with real numbers, vectors and matrices, using mental computation or paper-and-pencil calculations for simple cases and technology for more complicated cases.
Fuel Wise or Fuelish?

Expectation B. Judge the reasonableness of numerical computations and their results.
Fuel Wise or Fuelish?

Strand II. Algebra
Standard I. Understand patterns, relations and functions.
Expectation B. Understand relations and functions and select, convert flexibly among and use various representations for them.

Fuel Wise or Fuelish?

Standard III. Use mathematical models to represent and understand quantitative relationships.

Expectation A. Identify essential quantitative relationships in a situation and determine the class or classes of functions that might model the relationships.

Fuel Wise or Fuelish?

Expectation C. Draw reasonable conclusions about a situation being modeled.

Fuel Wise or Fuelish?

Strand III. Measurement

Standard I. Understand measurable attributes of objects and the units, systems and processes of measurement.

Expectation A. Make decisions about units, scales and viewing that are appropriate for problem situations involving measurement.

1. Make judgments about the appropriateness of units of measure and scales within a system and between systems.

Fuel Wise or Fuelish?

Strand V. Data Analysis and Probability

Standard I. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them.

Expectation C. Understand the meaning of measurement data and categorical data, of univariate and bivariate data and of the term variable.

Fuel Wise or Fuelish?

Standard II. Select and use appropriate statistical methods to analyze data.

Expectation A. For univariate measurement data, be able to display the distribution, describe its shape and select and calculate summary statistics.

Fuel Wise or Fuelish?

Standard IV. Understand and apply basic concepts of probability.

Expectation A. Understand the concepts of sample space and probability distribution and construct sample spaces and distributions in simple cases.

Fuel Wise or Fuelish?